

REMARKS

This responds to the Office Action dated December 13, 2007.

Claims 4, 17 and 26 were amended, no claims were canceled, and no claims were added; as a result, claims 1-32 remain pending in this application.

§112 Rejection of the Claims

Claim 4 was rejected under 35 U.S.C. § 112, second paragraph, as lacking sufficient antecedent basis. Claim 4 has been amended to address the rejection. It is respectfully requested that the rejection be withdrawn

Response to Arguments Section - Hite fails to disclose or suggest any operation performed with respect to interactive content

In the Response to Arguments section, Examiner, in a statement that starts with the phrase "[a]s mentioned above" submits that "the commercials as taught by Hite may be interactive." (Detailed Action, page 4.) It is respectfully pointed out that no discussion of Hite or interactive content appears in the Detailed Action above or prior to the Response to Arguments section. It is therefore unclear what is the basis for the statement that "the commercials as taught by Hite may be interactive."

As explained in the response to the previous Office action, there is no indication that any of the commercials in Hite are in a form of a video stream that includes interactive content. The explanation provided in the response to the previous Office action is reproduced below.

The Office action further makes a statement that a commercial in Hite supports interactivity and refers to the following description.

A viewer reaction feature can be included to cause additional relevant commercials to be presented in reaction to a viewer's response to questions or other viewer interaction transmitted using the up stream reporting capability described above. The relevant commercials could be for more detailed information about the same product or service.

Alternatively, they could be for products or services which are likely to be of interest to the viewer based on the viewer's responses. For example, a viewer who requests more information about children's aspirin may also be offered a subsequent commercial on children's chewable vitamins.

Hite, 3: 17-29.

As can be seen from the passage above, it appears that the Office action presumes that commercials in Hite support interactivity because Hite mentions presenting additional commercials in reaction to *a viewer's response to questions or other viewer "interaction"* transmitted using the up stream reporting capability. It is submitted that a viewer's response to questions in particular and other viewer interaction in general is possible without the commercial including interactive content (e.g., a viewer may provide responses to questions by calling the telephone number or accessing the web site displayed in the commercial) . The reference to *viewer interaction* in the passage does not disclose interactive content included in a video stream, which is evident from the description of the reporting capability utilized in Hite to transmit such "other user interaction." Hite discloses the reporting capability as follows.

In two way broadband systems, it is possible to implement and up stream reporting capability where signals are transmitted from the viewing location to a central database location for *reporting whether a specific viewing location had its receiving equipment powered and tuned to a specific channel*. This information can be used to further target the commercials. In situations where the broadband network is not capable of sending messages back to the central database, *other means* can be provided. *An example of such means is an auto dialer device* which accumulates the information and then at appropriate times dials a number and reports the accumulated data. The number dialed could be a local number or a "toll free 800" number. The reporting call can me made in a manner which first test to see if the phone line is in use and thereby ensures that calls in progress will not be interrupted. If someone in the home wishes to use the phone, this can be sensed and the report suspended and the phone line relinquished so that another call can be made. The interrupted data transmission would be completed later. In this manner, the

use of an *auto dial reporting capability* can be accomplished without intrusion on the normal use of the telephone line.

Hite, 2: 44-65.

As can be seen from the passage above, while Hite discloses monitoring and reporting whether the receiving equipment powered and tuned to a specific channel, there is no hint of any of the commercials in Hite being in a form of a video stream that includes interactive content. It is submitted that information related to viewer interaction is obtained in Hite by monitoring whether the receiving equipment is powered and tuned to a specific channel. This technique does not suggest any interactive content being included in the video stream. The Office action further states that Hite discloses an interactive content code by referring to transmitting to a recording device instructions that are used to "tell" the display which commercials should be played and which ones should be ignored (Hite, 4: 10-21.) It is submitted that the instructions mentioned above are not related to any interactive content, particularly in view of Hite lacking any description of a video stream that includes interactive content. Consequently, Hite fails to disclose or suggest any operation performed with respect to interactive content.

.§102 Rejection of the Claims

Claims 1-3, 5, 7 and 29-31 were rejected under 35 U.S.C. § 102(e) for anticipation by Kalluri et al. (U.S. Patent No. 5,937,331).

The only reference mentioned in the summary of rejection under §102 is Kalluri. However, the rejections of claims 2, 3, 5, and 7 also refer to Hite (U.S. Patent No. 6,002,393). These references to Hite do not provide any details regarding what features Examiner deems to be disclosed in Hite. The statements set forth by Examiner in the Response to Arguments section have been addressed above.

Thus, the discussion below addresses the rejection under §102 that refers to Kalluri, which is the only reference indicated in the summary of rejection under §102.

Kalluri describes digital broadcast station is configured to turn around and add interactive programming to a television signal originally conveyed by a remote network. The remote network inserts trigger commands within the vertical blanking intervals (VBIs) of the television signal to control the loading and playing of the interactive program at the broadcast station. (Kalluri, Abstract.) At the broadcast station, the trigger is extracted from the television signal and provided to an interactive program source. The interactive program source outputs an interactive program in accordance with the trigger. The interactive program is then combined with the television signal to be broadcast to end-users. (Kalluri, 5: 43-62.) Thus, in Kalluri, the trigger is used to control the loading and playing of the interactive program at the broadcast station. There is no indication in Kalluri that the trigger itself comprises interactive content.

The Office action cites the trigger disclosed in Kalluri (and discussed above) to show the following elements of claim 1:

- a first interactive content;
- an interactive content code; and
- a control signal.

For each of the three listed elements, the Office action cites the same feature in Kalluri - the trigger, but refers to different sections of the Kalluri patent. It is submitted that while Kalluri discloses trigger commands to control the loading and playing of the interactive program at the broadcast station (Kalluri, Abstract), the trigger in Kalluri cannot be equated simultaneously to "a first interactive content," "an interactive content code," and "a control signal" recited in claim 1.

As explained above, there is no indication in Kalluri that the trigger itself comprises interactive content. Therefore, a television signal that includes trigger commands (as in Kalluri) is distinct from a video stream that includes "video data, first interactive content and an interactive content code," as recited in claim 1. Furthermore, because the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands, the operations to be performed by

the interactive program source described in Kalluri (e.g., at 8: 23-36) do not include any operations "to produce a control signal to indicate the first interactive content is to be **replaced** with second interactive content," as recited in claim 1.

Thus, because Kalluri fails to disclose or suggest at least a first video stream that includes "video data, first interactive content and an interactive content code" and "an interactive content code detector adapted to detect the interactive content code and the option field therein, and based on the value of the option field, to produce a control signal to indicate the first interactive content is to be replaced with second interactive content," claim 1 and its dependent claims are patentable in view of Kalluri and should be allowed.

Claim 29 recites "the first video stream including video data, first interactive content, and an interactive content code" and "based on a value of the option field, selectively replacing the first interactive content in the second video stream with second interactive content to produce a third video stream." Thus, claim 29 and its dependent claims are patentable in view of Kalluri for at least the reasons articulated with respect to claim 1.

§103 Rejection of the Claims

Claims 6 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Blacketter et al. (U.S. Patent No. 6,415,438). Blacketter discloses a trigger that is broadcast along with a television video and that may include a Uniform Resource Identifier (Blacketter, 8: 5015; 1: 18-30).

Blacketter, whether considered separately or in combination with Kalluri, fails to disclose or suggest "video data, first interactive content and an interactive content code" and "an interactive content code detector adapted to detect the interactive content code and the option field therein, and based on the value of the option field, to produce a control signal to indicate the first interactive content is to be replaced with second interactive content." This feature is present in claim 6 by virtue of its being dependent on claim 1. Thus, claim 6 is patentable in view of the Blacketter and Kalluri combination and should be allowed.

Blacketter, whether considered separately or in combination with Kalluri, fails to disclose or suggest "the first video stream including video data, first interactive content, and an interactive content code" and "based on a value of the option field, selectively replacing the first interactive content in the second video stream with second interactive content to produce a third video stream." This feature is present in claim 32 by virtue of its being dependent on claim 29. Thus, claim 6 is patentable in view of the Blacketter and Kalluri combination and should be allowed.

Claims 4, 8-14, 17, 19-22, 24 and 27-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393).

Hite is directed at system and method for targeting TV advertisements to individual consumers. (Hite, Abstract.) Hite discloses transmitting to a recording device instructions that are used to "tell" the display which commercials should be played and which ones should be ignored. Such instructions are provided in advance of the commercial broadcast. (Hite, 4: 10-21.) Hite also discloses multiple commercials being simultaneously broadcasted in a television or radio commercial spot. One of the number of commercials in Hite may be designated or chosen as a default commercial. This default commercial is played unless replaced by a targeted commercial. (Hite, 4: 29-32.)

As explained above, Hite lacks any description of a video stream that includes interactive content and, consequently, fails to disclose or suggest any operation performed with respect to interactive content. Consequently, Hite, whether considered separately or in combination with Kalluri, fails to disclose or suggest "hardware adapted to receive one or more first video streams that include video data, first interactive content and an interactive content code, wherein the interactive content code includes an option field ...; an interactive content code detector adapted to detect the interactive content code and the option field therein, and based on the value of the option field, to produce a control signal to indicate the first interactive content is to be replaced with second interactive content; and a data insertion unit adapted to receive the control signal and to insert the second interactive content into the second video stream to produce a third video

stream." These features is present in claim 4 by virtue of its being dependent on claim 29. Thus, claim 4 is patentable in view of the Hite and Kalluri combination and should be allowed.

Claim 8 recites "the encrypted interactive content code specifies second interactive content to replace the first interactive content." As explained above, with reference to claim 1, because the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands, the operations to be performed by the interactive program source described in Kalluri do not include any operations to replace the first interactive content with second interactive content. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 8 and its dependent claims are patentable in view of the Kalluri and Hite combination.

Claim 14 recites "inserting the encrypted interactive content code into a first video stream including first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 14 and its dependent claims are patentable in view of the Kalluri and Hite combination.

Claim 17 recites "a first video stream including first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 17 and its dependent claim are patentable in view of the Kalluri and Hite combination.

Claim 19 recites "hardware adapted to receive a first video stream that includes video data, first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is

not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 19 is patentable in view of the Kalluri and Hite combination.

Claim 20 recites "the one or more first signals include video data, first interactive content, and one or more encrypted interactive content codes." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 20 and its dependent claims are patentable in view of the Kalluri and Hite combination.

Claim 27 recites "inserting an encrypted interactive content code into a first component of a first signal alternate to a second component, which includes first interactive content and is used to convey the first interactive content." As explained above, with reference to claim 1, the source television signal in Kalluri does not include interactive content until interactive content is combined with the television signal in accordance with the trigger commands. This deficiency is not remedied by Hite, in which a video stream does not include any interactive content. Thus, claim 27 is patentable in view of the Kalluri and Hite combination.

Claims 15, 18 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393) as applied to claims 14 and 17 above, and further in view of Blackketter et al. (U.S. Patent No. 6,415,438).

Claim 15 includes the feature of "inserting the encrypted interactive content code into a first video stream including first interactive content" by virtue of its being dependent on claim 14. As explained above, this feature is not present in the Kalluri and Hite combination. Blackketter, whether considered separately or in combination with Kalluri and Hite, also fails to disclose or suggest this feature. Thus, claim 15 is patentable in view of the Blackketter, Kalluri, and Hite combination.

Claim 18 includes the feature of "a first video stream including first interactive content" by virtue of its being dependent on claim 17. As explained above, this feature is not present in

the Kalluri and Hite combination. Blacketter, whether considered separately or in combination with Kalluri and Hite, also fails to disclose or suggest this feature. Thus, claim 18 is patentable in view of the Blacketter, Kalluri, and Hite combination.

Claim 23 includes the feature of "the one or more first signals include video data, first interactive content, and one or more encrypted interactive content codes" by virtue of its being dependent on claim 20. As explained above, this feature is not present in the Kalluri and Hite combination. Blacketter, whether considered separately or in combination with Kalluri and Hite, also fails to disclose or suggest this feature. Thus, claim 23 is patentable in view of the Blacketter, Kalluri, and Hite combination.

Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331), Hite (U.S. Patent No. 6,002,393) and Blacketter et al. (U.S. Patent No. 6,415,438) as applied to claim 15 above, and further in view of Ciciora et al ("3.3.5 Information Carried in the Vertical Blanking Interval," in *Modern Cable Television Technology*, 1999).

Claim 16 includes the feature of "inserting the encrypted interactive content code into a first video stream including first interactive content" by virtue of its being dependent on claim 14. As explained above, this feature is not present in the Blacketter, Kalluri, and Hite combination. Ciciora discloses various information that may be carried in the vertical blanking interval (Ciciora, section 3.3.5). Ciciora, whether considered separately or in combination with Blacketter, Kalluri, and Hite, also fails to disclose or suggest this feature. Thus, claim 16 is patentable in view of the Blacketter, Kalluri, and Hite combination.

Claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393) in view of Blacketter et al. (U.S. Patent No. 6,415,438), and further in view of Ciciora et al ("3.3.5 Information Carried in the Vertical Blanking Interval," in *Modern Cable Television Technology*, 1999).

The Office action correctly stated that the combination Blacketter, Kalluri, and Hite fails to disclose or suggest inserting interactive content codes into different regions of data in a video

stream. The Office action cites Blackketter to show this limitation. Blackketter describes broadcasting a duplicate trigger to make sure the trigger is received at the destination. It is submitted that broadcasting a trigger twice is distinct from "inserting a plurality of encrypted interactive content codes including corresponding option fields **into different regions of data in a video stream to be broadcast** to a plurality of local subsystems," as recited in claim 25. This deficiency of the Blackketter, Kalluri, and Hite combination is not remedied by combining Blackketter, Kalluri, and Hite with Ciciora, which refers to various information that may be carried in the vertical blanking interval (Ciciora, section 3.3.5). Thus, claim 25 is patentable in view of the Blackketter, Kalluri, Ciciora, and Hite combination.

Claim 26 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kalluri et al. (U.S. Patent No. 5,937,331) in view of Hite (U.S. Patent No. 6,002,393) in view of Kaiser et al. (U.S. Patent No. 6,615,408), and further in view of Ciciora et al ("3.3.5 Information Carried in the Vertical Blanking Interval," in *Modern Cable Television Technology*, 1999).

Claim 26 includes the feature of "conditions for replacing the first interactive content with the second interactive content." As explained above, this feature is not present in the Blackketter, Kalluri, and Hite combination. Ciciora, as well as Kaiser, directed at embedding a trigger in the vertical blanking interval (Kaiser, 6: 65-67 and 7: 1-4), whether considered separately or in combination with Blackketter, Kalluri, and Hite, also fails to disclose or suggest this feature. Thus, claim 26 is patentable in view of the Blackketter, Kalluri, Ciciora, Kaiser, and Hite combination.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 408-278-4052 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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